

REMARKS

Status of the Application

Claims 1, 3-7, 27, 28 and 30 are all the claims pending in the application. Claims 1, 3-6 and 27 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Takayama et al. (US 2003/0089913A1) in view of Burroughes et al. (US 6592969 B1). Claims 7, 28 and 30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Takayama et al. and Burroughes et al. in view of Ishida (US 4,661,428).

Preliminary Matters

Applicant thanks the Examiner for withdrawing the rejection of claim 3 under 35 U.S.C. § 112, second paragraph and the rejection of claims 1 and 4-6 under 35 U.S.C. § 102(e) as being anticipated by Burroughes et al. (U.S. 6,592,969).

Claim Rejections under 35 U.S.C. § 103

A *Claims 1, 3-6 and 27 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Takayama et al. (US 2003/0089913A1) in view of Burroughes et al. (US 6592969 B1).*

Claim 1 recites, in part, “an electrically active thin film device; wherein an electrically active layer of the electrically active thin film device is disposed directly on the substrate.” The Examiner alleges that Takayama discloses all of the elements of claim 1, with the exception of the thickness of the substrate being between 0 and 200 μm , citing FIG. 10 and its description. However, the Examiner alleges that Burroughes teaches this aspect of claim 1.

Applicant respectfully submits that Takayama fails to teach or suggest that an electrically active layer of the electrically active thin film device is disposed directly on the substrate. Takayama teaches a method for fabricating a thin film transistor on a plastic substrate. However, Takayama discloses that the base layer of device 201 is “a plastic substrate,” see paragraph [101]. Takayama does not disclose that the plastic substrate 201 is a flexible film upon which the substrate is disposed as required by claim 1. The substrate is then covered by a substrate insulating film 202. A semiconductor layer 203 covers the substrate insulating film. The Examiner argues that element 201 may be read as a flexible film, and element 202 may be read as a substrate for the purposes of rejecting claim 1. Applicant disagrees with the Examiner’s redefining of the elements of the applied reference in order to reject claim 1. Thus, based on the elements as recited by Takayama, the electrically active layer of the electrically active thin film device is disposed on the substrate insulating film, not on the substrate as claimed in claim 1. As noted above, the Examiner is reading the substrate insulating film in Takayama to be a substrate for purposes of rejecting claim 1. However, the substrate in Takayama is intentionally covered by a substrate insulating film. In other words, Takayama specifically requires an insulating film be disposed between the substrate and the thin film transistor, such that the thin film transistor is *not* directly disposed on the substrate. Therefore, Applicants respectfully request that the Examiner withdraw the rejection of claim 1 over Takayama in view of Burroughs. Further, Burroughs fails to cure the defects noted in Takayama, because Burroughs teaches that an electrode layer is disposed between the electrically active layer and the substrate. Therefore, claim 1 is patentable over the applied art.

Claims 3-6 are patentable over the applied art at least by virtue of their dependency from claim 1. Claim 27 recites limitations similar to claim 1. Therefore, claim 27 is patentable for reasons analogous to those presented with respect to claim 1.

B. Claims 7, 28 and 30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Takayama et al. and Burroughes et al. in view of Ishida (US 4,661,428).

Claim 7 is dependent from claim 1. Therefore, because the combination of Takayama and Burroughs fails to teach or suggest all of the elements of claim 1, and because Ishida fails to cure the defects noted with respect to claim 1, claim 7 is patentable by virtue of its dependency from claim 1.

Claims 28 and 30 recite limitations similar to claims 1 and 7. Therefore, for reasons analogous to those presented with respect to claims 1 and 7, claims 28 and 30 are patentable over the applied art.

Further, Applicant respectfully submits that Ishida fails to disclose that plastic and copper are recognized art equivalents as alleged by the Examiner with regard to the thermal conductivity of the flexible film recited in claims 7, 28 and 30. Takayama fails to mention a flexible film, only disclosing a substrate and a substrate insulating layer. Burroughes discloses a flexible film composed of plastic. Ishida discloses that metal, including copper, or *plastic coated with metal or metal oxide* may be used as an electrically conductive substrate. See col. 4, lines 56-59 of Ishida. Therefore, Ishida does not disclose that copper and plastic are equivalents, as the Examiner avers. For plastic to be used in place of a metal as taught by Ishida, the plastic must be covered in metal, i.e. to create an electrically conductive substrate. Therefore, the important


element in creating the substrate in Ishida is the presence of metal. Thus, claims 7, 28 and 30 are patentable as there is no motivation to combine Takayama and Burroughes with the substrate of Ishida as alleged by the Examiner as Burroughes teaches away from using copper as a flexible film. Burroughes specifically teaches that optical properties may be incorporated into the plastic layer. Because copper would prevent optical properties from being incorporated into the flexible film in Burroughes, Burroughes would teach away from using copper as a flexible film, and copper and plastic are not equivalents for the purpose of the flexible film in Burroughes.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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Respectfully submitted,

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Dion R. Ferguson
Registration No. 59,561

for

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

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